UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,850	07/26/2001	Mamoru Higashimura	33828	7188

116 7590 06/15/2005

PEARNE & GORDON LLP
1801 EAST 9TH STREET
SUITE 1200
CLEVELAND, OH 44114-3108

EXAMINER	
FLETCHER, JAMES A	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/915,850	HIGASHIMURA ET AL.	
	Examiner	Art Unit	
	James A. Fletcher	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *17* is/are allowed.

6)☒ Claim(s) *1-7,9-10,12 and 14-16* is/are rejected.

7)☒ Claim(s) *8,11 and 13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3 February 2005 have been fully considered but they are not persuasive.

In re page 7, applicant's representative states: "even if one can define an 'n' and an 'm' in the manner proposed by the Examiner, that would not be consistent with the manner that 'm' and 'n' are used in the claim language."

The examiner respectfully disagrees. As recited in claim 1, 'n' is merely a positive integer related to a frame switching pattern. As such, if a NAVCO 1700 is set up to have, as a simple example, four cameras, each with a dwell of one frame, then "n" would be 3 and "m" would be 1.

In re pages 7 and 8, applicant's representative states: "there is no teaching in the reference that frames are skipped by this number 'n'. The cited sections do not discuss frame skipping at all. Thus, the reference fails to teach skipping 'n' frames, as recited in the claim."

The examiner respectfully disagrees. The provided references are able to stand on their own, but by way of further explanation, NAVCO indicates, in SRT Chapter, Page 2, line 7, "The sorting will commence." As is understood by those with skill in the art, this means that only images from the selected camera will be shown, skipping images from the cameras that are not selected. As discussed above, "n" is 3 and "m" is 1.

In re page 8, applicant's representative states: "the claims recite that 'm' is 'related to a frame switching pattern'. In contrast, the reference merely teaches that a plurality of cameras can be switched in a sequential fashion, with a 'dwell' setting of up to '15 seconds', wherein the dwell apparently is the length of time a particular camera is displayed on a monitor. Thus, the result is that a continuous sequence of frames from one camera is based on the dwell time only, and thus is not related to a 'frame switching pattern' as recited in the claim."

Again, the examiner respectfully disagrees. As is clearly disclosed in NAVCO MON Chapter, page 1, lines 25-27, the dwell can be based on frames as well as on seconds, with values as low as 1 frame. Further, the sequence of the cameras is also programmable, as is clearly indicated in MON Chapter, Page 2, lines 6-8.

Further in re page 8, applicant's representative states: "The term 'multiplex' is defined as 'being or relating to a system of transmitting several messages or signals simultaneously on the same circuit or channel'... Thus the reference does not teach the apparatus of claim 1 for this reason as well."

The examiner notes that, based on the supplied definition, the instant invention does not multiplex, either. Figures 1A, 7B, 7D, and 8A all show a time-division multiplexed recording of images from individual cameras, switched on a frame basis and played sequentially, rather than simultaneously. Further, the specification, on page 3, lines 20-22 disclose "a multiple picture signal obtained by multiplexing picture signals from a plurality of cameras *via a frame switcher.*" (Emphasis added.) As is well known

to those of skill in the art, a frame switcher provides a single video signal output per circuit, which may switch during a blanking interval between frames.

Further in re page 8, applicant's representative states: "in response to claim 3, the Examiner takes Official Notice that 'when the number of frames is decreased from a situation where n>4 to a smaller number, such as n-2, the number of frames would then satisfy the equation'. However, even if true, there is no suggestion in the reference to reduce the number of frames as recited in the claim."

The examiner again respectfully disagrees. The suggestion to reduce the number of frames is made in the timer as disclosed in the CAM Chapter, Page 2, lines 2-3, which causes the number of active cameras in the sequence to change based on a schedule.

In re pages 8 and 9, applicant's representative states: "Even if avoiding a blank screen is known, there is no suggestion in either the reference or in the art of continuously reproducing 'm' frames at the end of an image, where 'm' is 'a positive integer related to a frame switching pattern'."

The examiner is unsure why the applicant's representative would make a statement that there is no suggestion in the art of continuously reproducing 'm' frames at the end of an image. Time base correctors and drop-out compensators are notoriously well known devices that repeatedly reproduce an image when the input signal is inadequate, and as is known to those of skill in the art, a video demultiplexer such as the one disclosed by NAVCO provides repeated display of the desired image during the time non-selected images are being presented from the recording medium.

In re page 9 and claim 10, applicant's representative states: "there is no suggestion in either the reference or the art for determining when 'the difference between a frame of the reconstructed image just before start of said skipping and the final frame of the reconstructed image' is 'smaller than m frames'."

The examiner respectfully disagrees. The term "smaller than m frames" can mean any value less than m, which, in the example noted above, could simply be 0. NAVCO discloses that they reproduce the reconstructed image until the next valid image becomes available, at which time the difference between the valid frames is zero.

In re page 10 and claim 14, applicant's representative states: "the claim specifically states that, in response to a suspension of reproduction command, reproduction is suspended after 'continuous reproduction of said predetermined m frames'. There is no suggestion in the reference or in the art of suspending in this particular manner."

The examiner respectfully disagrees. The claim, as written, merely states that reproduction is suspended when suspension is instructed during execution of reproduction. This would inherently occur in any device with a stop command. The examiner would suggest that the claim note a particular sequence of events be recited in the claim in order to overcome the cited prior art.

In re page 10, applicant's representative states: "The Examiner has cited no support for any such suggestion or motivation for the modifications from within the reference, and neither does the examiner provide any references or other prior art supporting any motivation to make the suggested modifications."

The examiner notes that the rejection of claim 9, where no motivation to modify was stated, has been withdrawn and the claim is noted as allowable over the prior art.

Claim Rejections - 35 USC § 112

2. Claim 9 recites the limitation "said subsequent reproduction of a reconstructed image" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2, 5-7, 9, 12 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by NAVCO ("Model 1700 System Controller Operating Instructions").

Regarding claims 1 and 15, NAVCO discloses an apparatus for recording and reproducing a multiple picture signal obtained by multiplexing picture signals from a plurality of cameras via a frame switcher (MON Chapter, Page 1, "The following Entry Screen allows setting of SEQUENCING MODE, and the setting of the MONITOR SEQUENCE, in any order and combination...Each of these monitor sequences may have an individual DWELL of up to 15 seconds or 15 Frames"), the apparatus having a skip reproduction feature for alternating skipping of n frames and continuous reproduction of m frames [n being a positive integer, and m being a positive integer related to a frame switching pattern] (SRT Chapter, Page 1 "Select the Camera desired to be sorted on the monitor." The value of n would be the number of cameras in the

sequence minus 1, and the value of m would be the number of images recorded from the selected camera, determined by the recording rate and the dwell setting of that particular camera in the MON menu.).

Regarding claim 2, NAVCO discloses an apparatus wherein the number of frames to be skipped is changed during skip reproduction (CAM Chapter, Page 2 "There is a separate ON/OFF TIMER for each of the sixty four...possible Cameras." When the timer drops a non-selected camera from the sequence, frames from that camera are no longer available to be skipped, so the number of skipped frames would change. Similarly, if a non-selected camera is added to the sequence by the timer, the images would then add to the number of skipped frames.).

Regarding claim 5, NAVCO discloses an apparatus wherein at least m frames are continuously reproduced at the beginning of a reproduction image (SRT Chapter, Page 2 "the image will appear to be frozen").

Regarding claim 6, NAVCO discloses an apparatus wherein the skip reproduction feature is implemented by a processing including a skip processing for only recognizing the frames (SRT Chapter, Page 1 "Select the Camera desired to be sorted on the monitor") and a reproduction processing for performing reproduction and output of the frames (SRT Chapter, Page 2, "Select the forward Playback mode on the VCR").

Regarding claim 7, NAVCO discloses an apparatus wherein the skip reproduction feature is implemented by a processing including skipping of n frames (SRT Chapter, Page 1 "Select the Camera desired to be sorted on the monitor") and the

subsequent reproduction of m frames (MON Chapter, Page 1, "The following Entry Screen allows setting of SEQUENCING MODE, and the setting of the MONITOR SEQUENCE, in any order and combination...Each of these monitor sequences may have an individual DWELL of up to 15 seconds or 15 Frames").

Regarding claim 9, NAVCO discloses an apparatus wherein the subsequent reproduction of a reconstructed image is performed on m frames up to a final frame of the reconstructed image when the difference between a frame just before start of the skipping and the final frame of a reconstructed image is equal to or greater than m frames and smaller than or equal to (n+m) frames (SRT Chapter, Page 2, "If the selected camera number was not recorded on the selected tape...the image will appear to be frozen..." A frozen image, as is understood by those of skill in the art, is accomplished by continually repeating an image. In this case, the value of m is equal to the number of images from non-selected cameras, and the value of m is equal to the number of images from a selected camera.).

Regarding claim 12, NAVCO discloses an apparatus wherein adjustment is made to set the remaining number of frames to a multiple of n+m at start of the skip reproduction feature and when the number of frames n to be skipped is changed during skip reproduction (MON Chapter, Page 1, "The following Entry Screen allows setting of SEQUENCING MODE, and the setting of the MONITOR SEQUENCE, in any order and combination...Each of these monitor sequences may have an individual DWELL of up to 15 seconds or 15 Frames" and SRT Chapter, Page 1 "Select the Camera desired to be sorted on the monitor." The value of n would be the number of cameras in the

sequence minus 1, and the value of m would be the number of images recorded from the selected camera, determined by the recording rate and the dwell setting of that particular camera in the MON menu.).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 3-4, 8, 10-11, 13-14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over NAVCO.

Regarding claim 3, NAVCO suggests an apparatus wherein the number of frames is changed to n-d [$2 \leq d < n$, d is a positive integer] in case the number of frames is decreased (SRT Chapter, Page 1 "Select the Camera desired to be sorted on the monitor" and CAM Chapter, Page 2 "There is a separate ON/OFF TIMER for each of the sixty four...possible Cameras").

The examiner takes official notice that when the number of frames is decreased from a situation where $n>4$ to a smaller number, such as n-2, the number of frames would then satisfy the claimed equation.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify NAVCO to include such equations in their instructions.

Regarding claim 4, NAVCO suggests but does not specifically disclose an apparatus wherein at least m frames are continuously reproduced at the end of a

reconstructed image (SRT Chapter, Page 1 "Select the Camera desired to be sorted on the monitor").

The examiner takes official notice that a device for displaying selected images from a continuous stream of images would obviously repeat the selected image in order to prevent a blank screen display.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify NAVCO to describe a continuous reproduction of the selected image until another image meeting the selection criteria was provided.

Regarding claim 10, NAVCO suggests but does not specifically disclose an apparatus wherein the reproduction is performed up to a final frame of a reconstructed image when the difference between a frame of the reconstructed image just before start of the skipping and the final frame of the reconstructed image is smaller than m frames (SRT Chapter, Page 2, "If the selected camera number was not recorded on the selected tape...the image will appear to be frozen...").

The examiner takes official notice that a device for displaying selected images from a continuous stream of images would obviously repeat the selected image in order to prevent a blank screen display.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify NAVCO to describe a continuous reproduction of the selected image until another image meeting the selection criteria was provided.

Regarding claim 14, NAVCO suggest an apparatus wherein reproduction is suspended after continuous reproduction of the predetermined m frames when

suspension of reproduction is instructed during execution of the skip reproduction feature (SRT Chapter 2, "VCR of the 2600 and 2700 Series example" shows a VCR control allowing stop "[stop]" of the VCR while sorting).

While this does not explicitly disclose the suspension of reproduction when suspension of reproduction is instructed, the examiner takes official notice that a "stop" command is well known to suspend reproduction operation in a playback apparatus.

Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to cause the suspension of reproduction when the VCR is instructed to stop reproduction.

Regarding claim 16, NAVCO discloses an image reproducing method for skip reproducing a multiple picture signal obtained by multiplexing picture signals from a plurality of cameras via a frame switcher, the image reproducing method comprising the steps of:

- skipping n frames of the multiple picture signal (SRT Chapter, Page 1 "Select the Camera desired to be sorted on the monitor." The value of n would be the number of cameras in the sequence minus 1, and the value of m would be the number of images recorded from the selected camera, determined by the recording rate and the dwell setting of that particular camera in the MON menu.);
- NAVCO suggests continuous reproducing m frames of the multiple picture signal (SRT Chapter, Page 1 "Select the Camera desired to be sorted on the monitor");

The examiner takes official notice that a device for displaying selected images from a continuous stream of images would obviously repeat the selected image in order to prevent a blank screen display.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify NAVCO to describe a continuous reproduction of the selected image until another image meeting the selection criteria was provided.

- and; repeating the skipping and continuous reproducing (SRT Chapter, Page 2 "VCR of the 2600 and 2700 Series example" "fwd" [forward play] command).

Allowable Subject Matter

7. Claims 8, 11, and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claim 17 is allowed.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fletcher whose telephone number is (571) 272-7377. The examiner can normally be reached on 7:45-5:45 M-Th, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached on (571) 272-7950. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James J. Groody
Supervisory Patent Examiner
Art Unit ~~262~~ 2616

JAF
9 June 2005